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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,474	03/07/2007	Alain Rolland	403700/WEINSTEIN	7052
23548 7590 10/27/2010 LEYDIG VOIT & MAYER, LTD 700 THIRTEENTH ST. NW SUITE 300 WASHINGTON, DC 20005-3960			EXAMINER TRINH, TAN H	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 10/27/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/579,474	Applicant(s) ROLLAND ET AL.	
	Examiner TAN TRINH	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-15-2010 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmutz (US Pub. No. 2001/0031624) in view of Anders (U.S. Patent No. 4,827,395).

Regarding claim 1, Schmutz teaches a local communications network (fig. 1) providing communication between a mobile station (18) and a fixed radio frequency station (15) of the local communications network (15 of system 10), a relay antenna (11 and 13 of repeater 12) and wireless radio frequency transmission link (19) which links the antenna (13 to 14) to the fixed radio frequency station (15) without any wired connection intervening between the relay antenna (11 and 13 of repeater 12) and the fixed radio frequency station (15) (fig. 1, page 2, par [0020-0021]). In this case the fixed radio frequency station (15) is BTS base station and connecting

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these signals to the Public Switched Telephone Network (PSTN) through mobile telephone exchange (16) on the system (10) that is the fixed radio frequency station of the local communications network (see fig. 1 and , page 2, par [0020-0021]).

Still regarding claim 1, Schmutz teaches the demodulator at base station, Schmutz does not mention the newly added limitation of “the wireless radio frequency transmission link includes: at relay antenna (relay station), a demodulator removing the carrier from the high frequency signal received by the relay antenna (relay station)”. Such teaching is taught by Anders (see fig. 6, relay station (70) and demodulator (72 and 76), col. 23, lines 37-57). In this case, since demodulator is removing the carrier from the high frequency signal that is well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Schmutz with Anders, in order to provide relay station (70) to demodulated the carrier and information associated with incoming wireless signal (see suggested by Anders on col. 23, lines 37-47) and col. 24, lines 11-12).

Regarding claim 2, Schmutz teaches the wireless radio frequency transmission link includes means for transmitting and receiving signals at selectable frequencies in range from 400 MHz to 18 GHz (see PCS and standard wireless telephony GSM, page 2, par [19 and 0026]).

In this case, Schmutz teaches the GSM frequency ranges GSM networks operate in a number of different frequency ranges (separated into GSM frequency ranges for 2G and UMTS frequency bands for 3G). Most 2G GSM networks operate in the 900 MHz or 1800 MHz bands.

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Some countries in the Americas (including Canada and the United States) use the 850 MHz and 1900 MHz bands because the 900 and 1800 MHz frequency bands were already allocated. Most 3G GSM networks in Europe operate in the 2100 MHz frequency band. The rarer 400 and 450 MHz frequency bands are assigned in some countries where these frequencies were previously used for first-generation systems. GSM-900 uses 890–915 MHz to send information from the mobile station to the base station (uplink) and 935–960 MHz for the other direction (downlink), providing 125 RF channels (channel numbers 1 to 124) spaced at 200 kHz. Duplex spacing of 45 MHz is used. In some countries the GSM-900 band has been extended to cover a larger frequency range. This 'extended GSM', E-GSM, uses 880–915 MHz (uplink) and 925–960 MHz (downlink), adding 50 channels (channel numbers 975 to 1023 and 0) to the original GSM-900 band. The transmission power in the handset is limited to a maximum of 2 watts in GSM850/900 and 1 watt in GSM1800/1900. So that Schmutz teaches the limitation of the frequency range between 400MHz to 18GHz may be at 1800 MHz bands.

Regarding claim 3, Schmutz teaches the wireless radio frequency transmission link (19) includes a first electronic device (12) associated with the relay antenna (13 of 12) and a second electronic device (14 of 15) associated with the fixed radio frequency station (15) and a wireless transmission channel (19) these connecting the first (12) and second electronic devices (15) (see fig. 1).

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Regarding claim 4, Schmutz teaches the first electronic device (12) includes means for analog/digital (A/D 39C) conversion and the second electronic device (15) includes means for digital/analog conversion (D/A 38C) (fig. 2-3, page 2-3, par [0026-0027 and 0031-0035]).

Regarding claim 5, Schmutz teaches the first (12) and second electronic devices (15) include means for compressing *or* decompressing the signal to be transmitted (page 1, par [0006]).

Regarding claim 9, Schmutz teaches the first (12) and second electronic devices (15) include means for compressing or decompressing the signal to be transmitted (page 1, par [0006]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6-8, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmutz (US Pub. No. 2001/0031624) in view of Anders (U.S. Patent No. 4,827,395) further in view of Baker (US Pub. No. 2003/0232595).

Regarding claim 6 and 10-11, Schmutz teaches the relay antenna (11 and 13 of repeater 12) multiband antenna (13 and 14), and the first electronic device (12) and BTS (15) (see fig. 1,

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repeater 12 with translator directional antennas 13, page 2, par [0020-0021]). But Schmutz does not mention the multiband antenna includes means for identifying a channel on which signals to be transmitted are received by the antenna.

However, Baker teaches the repeater (110 or 200) with multi-band antenna (212) includes for identifying a channel on which signals to be transmitted are received by the antenna (fig. 1-3 and 6, page 4, par [0044-0050]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Schmutz and Anders with Baker, in order to provide amplifier unit and repeater configured to identify a frequency associated with incoming wireless signal (see suggested by Baker on page 4, par [0050]).

Regarding claims 7 and 12-14, Baker teaches the first electronic device (110 or 200) includes means for verifying the presence of fixed radio frequency station for functioning at a frequency at which signals to be transmitted are received by the relay antenna (212, 214 and 206, 208) (see fig. 2-3 and 6, page 4-5, par [0044, and [0048-0057], and page 8, par [0106-0107]). In this case, the repeater with amplifier to configured to verified the incoming signal and to compensate for a loss in signal strength with the function and calculated value, for transmitting and amplifier to the level that detected incoming signal and converted and transmitted.

Regarding claim 8, Baker teaches including a plurality of fixed radio frequency several stations, each station functioning at a predetermined frequency and communicating with a multi-

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band antenna (212, 206 and 208) (fig. 1-3 and 5-6, page 2-5, par [0024, 0044, 0059], and page 7, par [0084], page 8, par [0106-0108]).

Response to Arguments

6. Applicant's arguments filed 02-09-2010 and 10-15-2010 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that the reference of Schmutz is teaching on fig. 1, The figure 1 depicts a system in which cellular telephones (18) repeater stations 12 and communicate over respective wireless links 19 with respective base transceiver stations 15. Those base transceiver stations all communicate with a single fixed base station controller 17 over wired, i.e., coaxial cable, connections and that is an intervening wired connection between the fixed base station and the relay antennas.

However, the examiner does not agree, since Schmutz teaches the base transceiver stations (15) and fixed base station controller (17) is the system (10) of a local communications network (fig. 1), providing communication between a mobile station (18) and a fixed radio frequency station (15) of the local communications network (15 of system 10), a relay antenna (11 and 13 of repeater 12) and wireless radio frequency transmission link (19) which links the antenna (13 to 14) to the fixed radio frequency station (15) without any wired connection intervening between the relay antenna (11 and 13 of repeater 12) and the fixed radio frequency station (15) (fig. 1, page 2, par [0020-0021]). In this case the fixed radio frequency station (15) is BTS base station and connecting these signals to the Public Switched Telephone Network (PSTN) through mobile telephone exchange (16) on the system (10) that is the fixed radio

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frequency station of the local communications network (see fig. 1 and , page 2, par [0020-0021]), the base transceiver stations (15) or base station (BS-15) of the system (10) is the local communications network fixed station, and the wireless links 19 with respective base transceiver stations 15 to repeater antenna (relay antenna) is wireless link that without any wired connection intervening between the relay antenna (11 and 13 of repeater 12) and the fixed radio frequency station (15 of BS system 10).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., relay antenna is a base transceiver stations (BTS) antenna (BTS repeater), and base station controller (BSC) or Mobile Switching Center (MSC), and providing communication wirelessly between BTS and BSC or MSC without wired or cables between this network) are not recited in the claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore the reference of Schmutz is teaching the limitation of claim.

Conclusion

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for Technology Center 2600 only)

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*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314**).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Division 2618
October 22, 2010

/TAN TRINH/
Primary Examiner, Art Unit 2618